1) Write a C# program to swap two numbers and read number from the console and check whether a given number is odd or even.

```
using System;
using System.Collections.Generic;
using System.Linq;
using System.Text;
using System.Threading.Tasks;

namespace swap
{
    class Program
    {
        static void Main(string[] args)
        {
            int no1, no2, temp;
            Console.WriteLine("enter the two numbers");
            no1 = int.Parse(Console.ReadLine());
            no2 = int.Parse(Console.ReadLine());
            Console.WriteLine("--BEFORE SWAPPING--");
            Console.WriteLine("first no is" + no1);
            Console.WriteLine("secound no is" + no2);
            temp = no1;
            no1 = no2;
            no2 = temp;
            Console.WriteLine("--AFTER SWAPPING--");
            Console.WriteLine("first no is" + no1);
            Console.WriteLine("secound no is" + no2);
            if(no1%2==0)
            {
                Console.WriteLine("the num" + no1 + " is EVEN");
            }
            else
            {
                Console.WriteLine("the num" + no1 + "is ODD");
            }
            if (no2 % 2 == 0)
            {
                Console.WriteLine("the num" + no2 + " is EVEN");
            }
            else
            {
                Console.WriteLine("the num" + no2 + "is ODD");
            }
            Console.ReadLine();
        }

    }
}
```

OUTPUT :

```
D:\dotnetlab>swappingcmd
enter the two numbers
20
10
--BEFORE SWAPPING--
first no is20
secound no is10
--AFTER SWAPPING--
first no is10
secound no is20
the num10 is EVEN
the num20 is EVEN
-
```

2) Write a C# program to implement Stack operation.

```csharp
using System;
using System.Collections.Generic;
using System.Linq;
using System.Text;
using System.Threading.Tasks;

namespace stack
{
    class Stack
    {
        int top;
        int size;
        int[] stack=new int[100];

        public Stack()
        {

            Console.WriteLine("ENTER THE SIZE OF THE STACK:");
            size = int.Parse(Console.ReadLine());
            top = -1;
        }
        public void Push(int data)
        {
            if (top >= size)
            {
                Console.WriteLine("Stack Overflow");
                return;
            }
            else
            {

                stack[++top] = data;
                return;
            }
        }

        public  void Pop()
        {
            if (top == -1)
            {
                Console.WriteLine("Stack Underflow");
                return ;
            }
            else
            {
                int value = stack[top--];
                Console.WriteLine("Poped Element Is" +value);
                return;
```

```csharp
            }
        }

        public void Peek()
        {
            if (top < 0)
            {
                Console.WriteLine("Stack Underflow");
                return;
            }
            else
                Console.WriteLine("The topmost element of Stack is :"+stack[top]);
        }

        public void PrintStack()
        {
            if (top==-1)
            {
                Console.WriteLine("Stack Underflow");
                return;
            }
            else
            {
                Console.WriteLine("Items in the Stack are :");
                for (int i = top; i >= 0; i--)
                {
                    Console.WriteLine(stack[i]);
                }
            }
        }
    }

    class Program
    {
        static void Main(string[] args)
        {

            Stack s = new Stack();
            int ch;
            do
            {
                Console.WriteLine("-------Stack Operation------");
                Console.WriteLine("1.PUSH");
                Console.WriteLine("2.POP");
                Console.WriteLine("3.DISPAY");
                Console.WriteLine("4.PEEK");
                Console.WriteLine("5.EXIT");
                Console.WriteLine("ENTER YOUR CHOICE:");
                ch = Convert.ToInt32(Console.ReadLine());
```

```csharp
                switch (ch)
                {
                    case 1:
                        Console.WriteLine("ENTER THE INSERTING ELEMENT");
                        int e = int.Parse(Console.ReadLine());
                        s.Push(e);
                        break;
                    case 2:
                        s.Pop();
                        break;

                    case 3:
                        s.PrintStack();
                        break;
                    case 4:
                        s.Peek();
                        break;
                    case 5:
                        Console.WriteLine("Exiting.....");
                        break;

                }
            } while (ch != 5);
            Console.ReadLine();

        }
    }
}
```

OUT PUT:

```
D:\dotnetlab>stackopr
ENTER THE SIZE OF THE STACK:
5
-------Stack Operation------
1.PUSH
2.POP
3.DISPAY
4.PEEK
5.EXIT
ENTER YOUR CHOICE:
1
ENTER THE INSERTING ELEMENT
10
-------Stack Operation------
1.PUSH
2.POP
3.DISPAY
4.PEEK
5.EXIT
ENTER YOUR CHOICE:
1
ENTER THE INSERTING ELEMENT
20
-------Stack Operation------
1.PUSH
2.POP
3.DISPAY
4.PEEK
5.EXIT
ENTER YOUR CHOICE:
1
ENTER THE INSERTING ELEMENT
30
-------Stack Operation------
1.PUSH
2.POP
3.DISPAY
4.PEEK
5.EXIT
ENTER YOUR CHOICE:
3
Items in the Stack are :
30
20
10
```

```
-------Stack Operation------
1.PUSH
2.POP
3.DISPAY
4.PEEK
5.EXIT
ENTER YOUR CHOICE:
2
Poped Element Is30
-------Stack Operation------
1.PUSH
2.POP
3.DISPAY
4.PEEK
5.EXIT
ENTER YOUR CHOICE:
4
The topmost element of Stack is :20
-------Stack Operation------
1.PUSH
2.POP
3.DISPAY
4.PEEK
5.EXIT
ENTER YOUR CHOICE:
3
Items in the Stack are :
20
10
-------Stack Operation------
1.PUSH
2.POP
3.DISPAY
4.PEEK
5.EXIT
ENTER YOUR CHOICE:
5
Exiting.....
```

3) Write a C# program to display the Student details using Structure.

```csharp
using System;
using System.Collections.Generic;
using System.Linq;
using System.Text;
using System.Threading.Tasks;

namespace structure
{
    public struct student
    {
        public int rno;
        public string name, dept, cource;
    }
    class Program
    {
        static void Main(string[] args)
        {
            student st;
            Console.Write("enter the Student rollno :");
            st.rno = int.Parse(Console.ReadLine());
            Console.Write("enter the Student name :");
            st.name =Console.ReadLine();
            Console.Write("enter the name of department :");
            st.dept = Console.ReadLine();
            Console.Write("enter the cource :");
            st.cource = Console.ReadLine();
            Console.WriteLine("-----student details-----");
            Console.WriteLine("Roll no:" + st.rno);
            Console.WriteLine("Name of student :" + st.name);
            Console.WriteLine("Department:" + st.dept);
            Console.WriteLine("Cource:" + st.cource);
            Console.WriteLine("-------------------------");
            Console.ReadKey();

        }
    }
}
```

OUT PUT

```
D:\dotnetlab>structcmd
enter the Student rollno :111
enter the Student name :ansira
enter the name of department :mca
enter the cource :mca
-----student details-----
Roll no:111
Name of student :ansira
Department:mca
Cource:mca
-------------------------

D:\dotnetlab>structcmd
enter the Student rollno :111
enter the Student name :ansira
enter the name of department :cs
enter the cource :mca
-----student details-----
Roll no:111
Name of student :ansira
Department:cs
Cource:mca
-------------------------
```

4) Write a C# program to demonstrate Error Handling using TRY,CATCH and FINALLY block.

```csharp
using System;

using System.Collections.Generic;

using System.Linq;

using System.Text;

using System.Threading.Tasks;


namespace ErrorHandlingApplication
{
      class DivNumbers
      {
            int result;
            public DivNumbers()
            {
               result = 0;
            }
            public void division(int num1, int num2)
            {
               try
               {
                       Console.WriteLine("enter two numbers");
                        num1 = int.Parse(Console.ReadLine());
                        num2 = int.Parse(Console.ReadLine());
                        result = num1 / num2;
               }
               catch (DivideByZeroException e)
               {
                  Console.WriteLine("Exception caught: {0}", e);
               }
               finally
               {
                  Console.WriteLine("Result:{0}", result);
               }
            }
            static void Main(string[] args)
            {
               DivNumbers d = new DivNumbers();
               d.division(25, 0);
               Console.ReadKey();
            }
      }
}
```

OUTPUT :

```
D:\dotnetlab>trycatchcmd1
enter two numbers
10
2
Result:5

D:\dotnetlab>trycatchcmd1
enter two numbers
10
0
Exception caught: System.DivideByZeroException: Attempted to divide by zero.
    at ErrorHandlingApplication.DivNumbers.division(Int32 num1, Int32 num2)
Result:0
-
```

5) Write a C# program to demonstrate Operator Overloading.

```csharp
using System;
using System.Collections.Generic;
using System.Linq;
using System.Text;
using System.Threading.Tasks;

namespace operatoroverload
{
    class Box
    {
        private double length;
        private double breadth;
        private double height;

        public double getVolume()
        {
            return length * breadth * height;
        }
        public void setLength(double len)
        {
            length = len;
        }
        public void setBreadth(double bre)
        {
            breadth = bre;
        }

        public void setHeight(double hei)
```

```csharp
        {

            height = hei;


        }
        public static Box operator +(Box b, Box c)

        {

            Box box = new Box();

            box.length = b.length + c.length;

            box.breadth = b.breadth + c.breadth;

            box.height = b.height + c.height;

            return box;

        }

    }

    class Tester

    {

        static void Main(string[] args)

        {

            Box Box1 = new Box();

            Box Box2 = new Box();

            Box Box3 = new Box();

            double volume = 0.0;


            Console.WriteLine("enter the length for box 1");
            double sl = double.Parse(Console.ReadLine());
            Console.WriteLine("enter the breadth for box 1");
            double sb = double.Parse(Console.ReadLine());
            Console.WriteLine("enter the height for box 1");
            double sh = double.Parse(Console.ReadLine());

            Box1.setLength(sl);
```

```csharp
            Box1.setBreadth(sb);

            Box1.setHeight(sh);


            Console.WriteLine("enter the length for box 2");
            double sl2 = double.Parse(Console.ReadLine());
            Console.WriteLine("enter the breadth for box 2");
            double sb2 = double.Parse(Console.ReadLine());
            Console.WriteLine("enter the height for box 2");
            double sh2 = double.Parse(Console.ReadLine());

            Box2.setLength(sl2);

            Box2.setBreadth(sl2);

            Box2.setHeight(sl2);


            volume = Box1.getVolume();

            Console.WriteLine("Volume of Box1 : {0}", volume);



            volume = Box2.getVolume();

            Console.WriteLine("Volume of Box2 : {0}", volume);


            Box3 = Box1 + Box2;



            volume = Box3.getVolume();

            Console.WriteLine("Volume of Box3 : {0}", volume);

            Console.ReadKey();
        }

    }

}
```

OUTPUT:

```
D:\dotnetlab>opoverloadcmd1
enter the length for box 1
10
enter the breadth for box 1
20
enter the height for box 1
15
enter the length for box 2
5
enter the breadth for box 2
5
enter the height for box 2
7
Volume of Box1 : 3000
Volume of Box2 : 125
Volume of Box3 : 7500
```

6) Write a C# program to illustrate Delegate.

```
using System;

using System.Collections.Generic;

using System.Linq;

using System.Text;

using System.Threading.Tasks;


namespace @delegate

{
        class Program

        {
           public delegate  void addnumber(double a, double b);
           public delegate void mulnumber(double c, double d);
           public void add(double a, double b)
           {
              double sum = a + b;
              Console.WriteLine("SUM OF TWO NUMBERS {0}", sum);
           }
           public void multiply(double c,double d)

           {
              double mul = c * d;
              Console.WriteLine("PRODUCT OF TWO NUMBERS {0}", mul);

           }

           static void Main(string[] args)
           {
              double no1,no2,num1,num2;
              Program obj = new Program();
              addnumber ad = new addnumber(obj.add);
              mulnumber mul = new mulnumber(obj.multiply);
              Console.WriteLine("ENTER A TWO  NUMBERS FOR SUM");
              no1 = double.Parse(Console.ReadLine());
              no2 = double.Parse(Console.ReadLine());
              ad(no1, no2);
              Console.WriteLine("ENTER A TWO  NUMBERS MULTIPLY");
              num1 = double.Parse(Console.ReadLine());
              num2 = double.Parse(Console.ReadLine());
              mul(num1, num2);
              Console.ReadKey();

           }
```

```
        }

}
```

OUTPUT:

```
D:\dotnetlab>delegatecmd
ENTER A TWO  NUMBERS FOR SUM
10
20
SUM OF TWO NUMBERS 30
ENTER A TWO  NUMBERS MULTIPLY
5
6
PRODUCT OF TWO NUMBERS 30
```

7) Write a C# program to demonstrate Abstract class, Static Method, Method Overloading, and Constructor Concept.

```csharp
using System;
using System.Collections.Generic;
using System.Linq;
using System.Text;
using System.Threading.Tasks;

namespace staticoverload
{
    class Program
    {

        public Program()
        {
            double l, b, arearect;
            Console.Write("\nenter the length and breadth");
            l = double.Parse(Console.ReadLine());
            b = double.Parse(Console.ReadLine());
            arearect = l * b;
            Console.Write("\nArea of rectangle:"+arearect);
        }
    }


    class staticmethod
    {
        static public void method()
        {
            double r, ar;
             Console.Write("\nenter the radius");
             r = double.Parse(Console.ReadLine());
             ar = 3.14 * r * r;
            Console.WriteLine("\narea of circle."+ar);

        }
    }

    abstract class abstract1
    {
        public void getdata()
        {
            Console.WriteLine("welcome to visual studio");
        }

    }
    class welcome:abstract1
    {
```

```csharp
    }

    class overloading
    {
        public int area(int a)
        {
            int cube;
            cube = 6 * a;
            return cube;
        }

        public double area(double h, double b)
        {
            double triangle;
            triangle = 0.5 * h * b;
            return triangle;
        }

        public static void Main(string[] args)
        {
            Console.Write("\n---AREA OF RECATANGLE---\n");
            Program obj = new Program();
            Console.Write("\n-----AREA OF CIRCLE-----\n");
            staticmethod.method();
            overloading ob = new overloading();
            Console.Write("\n------AREA OF CUBE------\n");
            Console.Write("\nenter the width");
            int ar = int.Parse(Console.ReadLine());
            Console.Write("\nArea of cube is:" + ob.area(ar));
            Console.Write("\n----AREA OF TRIANGLE----\n");

            double hight = double.Parse(Console.ReadLine());
            double bas = double.Parse(Console.ReadLine());
            Console.WriteLine("\nArea of triangle is:" + ob.area(hight, bas));
            welcome wc = new welcome();
            wc.getdata();
            Console.ReadLine();
        }
    }
}
```

OUT PUT:

```
file:///D:/dotnetlab/staticoverload/staticoverload/bin/Deb
welcome to visual studio

---AREA OF RECATANGLE---

enter the length and breadth10
3

Area of rectangle:30
-----AREA OF CIRCLE-----

enter the radius5

area of circle.78.5

------AREA OF CUBE------

enter the width10

Area of cube is:60
----AREA OF TRIANGLE----
Enter hight and base
5
4

Area of triangle is:10
```

8) Write a C# program to find the sum of all element present in a Jagged Array of three Inner Array.

```csharp
using System;
using System.Collections.Generic;
using System.Linq;
using System.Text;
using System.Threading.Tasks;

namespace LabPro7
{
    class Program
    {
        static void Main(string[] args)
        {
            int [][]a=new int[3][];
            int[] sum = new int[3];
            int s,i,j;
            Console.WriteLine("----Jagged Array-----");
            for(i=0;i<3;i++)
            {
                Console.WriteLine("Enter the array"+(i+1)+" Size");
                s = int.Parse(Console.ReadLine());
                a[i] = new int[s];
                sum[i] = 0;
            }
            for(i=0;i<3;i++)
            {
                Console.WriteLine("Enter the Values for the " + (i + 1) + " Array");
                for(j=0;j<a[i].Length;j++)
                {
                    a[i][j] = int.Parse(Console.ReadLine());
                    sum[i] = sum[i] + a[i][j];
                }
            }
            for (i = 0; i < 3; i++)
            {
                Console.WriteLine("\nThe jagged array" + (i + 1) + " Elements");
                for (j = 0; j < a[i].Length; j++)
                {
                    Console.Write(a[i][j]+"\t");
                }
                Console.WriteLine();
            }
            Console.WriteLine("----The jagged array sums----");
            for(i=0;i<3;i++)
            {
                Console.WriteLine("The Sum of jagged array " + (i + 1) + " is :" + sum[i]);
            }
            Console.ReadKey();
```

```
        }
    }
}
```

OUTPUT:

```
file:///D:/pushparaj/3rd Sem/dotnet/LabPro7/LabPro7/bin/Debug/LabPro7.EXE
----Jagged Array-----
Enter the array1 Size
3
Enter the array2 Size
2
Enter the array3 Size
4
Enter the Values for the 1 Array
10
5
6
Enter the Values for the 2 Array
22
7
Enter the Values for the 3 Array
16
9
4
1

The jagged array1 Elements
10      5       6

The jagged array2 Elements
22      7

The jagged array3 Elements
16      9       4       1
----The jagged array sums----
The Sum of jagged array 1 is :21
The Sum of jagged array 2 is :29
The Sum of jagged array 3 is :30
```

9) Write a C# program to illustrate Multiplication using Rectangular Array's.

```csharp
using System;
using System.Collections.Generic;
using System.Linq;
using System.Text;
using System.Threading.Tasks;

namespace matrixmultiplication
{
    class Program
    {

        static void Main(string[] args)
        {
            int[,] a;
            int[,] b;
            int[,] prod;
            int i, j, k, m1, n1, m2, n2, m, n;

            Console.WriteLine("Enter the First Matrix\n");

            Console.WriteLine("Enter the row size\n");
            m1 = int.Parse(Console.ReadLine());
            Console.WriteLine("Enter the Column size\n");
            n1 = int.Parse(Console.ReadLine());
            a = new int[m1, n1];
            Console.WriteLine("Enter the Values of the Matrix\n");
            for (i = 0; i < m1; i++)
            {
                for (j = 0; j < n1; j++)
                {
                    a[i, j] = int.Parse(Console.ReadLine());
                }
            }

            Console.WriteLine("Enter the Second Matrix\n");
            Console.WriteLine("Enter the row size\n");
            m2 = int.Parse(Console.ReadLine());
            Console.WriteLine("Enter the Column size\n");
            n2 = int.Parse(Console.ReadLine());
            b = new int[m2, n2];
            Console.WriteLine("Enter the Values of the Matrix\n");
            for (i = 0; i < m2; i++)
            {
                for (j = 0; j < n2; j++)
                {
                    b[i, j] = int.Parse(Console.ReadLine());
                }
            }
```

```csharp
            if (n1 != m2)
            {
                Console.WriteLine("!!!----Matrix Multiplication not Possible----!!!");
            }
            else
            {
                prod = new int[m1, n2];
                m = m1;
                n = n2;
                for (i = 0; i < m; i++)
                {
                    for (j = 0; j < n; j++)
                    {
                        for (k = 0; k < n1; k++)
                        {
                            prod[i, j] = prod[i, j] + a[i, k] * b[k, j];
                        }
                    }
                }

                Console.WriteLine("---After Multiplication---\n");
                for (i = 0; i < m; i++)
                {
                    for (j = 0; j < n; j++)
                    {
                        Console.Write(prod[i, j] + "\t");
                    }
                    Console.WriteLine("");
                }
            }
            Console.ReadKey();
        }
    }
}
```

OUTPUT :

```
file:///D:/shub.net/matrixmultiplication/matrixmult

2
Enter the Column size

2
Enter the Values of the Matrix

10
5
8
4
Enter the Second Matrix

Enter the row size

2
Enter the Column size

2
Enter the Values of the Matrix

10
20
8
4
---After Multiplication---

140     220
112     176
```

10) Write a C# program to implement Inheritance.

```csharp
using System;
using System.Collections.Generic;
using System.Linq;
using System.Text;
using System.Threading.Tasks;

namespace inheritance
{
    public class get_per_info
    {
        public string name, address, gender;
        public void get_per_data()
        {
            Console.WriteLine("Enter the Name");
            name = Console.ReadLine();
            Console.WriteLine("Enter the gender");
            gender = Console.ReadLine();
            Console.WriteLine("Enter the Address");
            address = Console.ReadLine();
        }
    }
    public class get_physic_info : get_per_info
    {
        public int weight, height;
        public string blood_group;
        public void get_physic_data()
        {
            Console.WriteLine("Enter the weight");
            weight = int.Parse(Console.ReadLine());
            Console.WriteLine("Enter the Height");
            height = int.Parse(Console.ReadLine());
            Console.WriteLine("Enter the Blood Group");
            blood_group = Console.ReadLine();
        }
    }
    public class student : get_physic_info
    {
        public int rollnumber;
        public string clss, dept;
        public void get_student()
        {
            get_per_data();
            get_physic_data();
            Console.WriteLine("Enter the Roll Number");
            rollnumber = int.Parse(Console.ReadLine());
            Console.WriteLine("Enter the class");
            clss = Console.ReadLine();
            Console.WriteLine("Enter the Department");
```

```csharp
            dept = Console.ReadLine();
        }
        public void display_student()
        {
            Console.WriteLine("\n-------STUDENT INFORMATION--------\n");
            Console.WriteLine("Roll Number\t:" + rollnumber);
            Console.WriteLine("Name\t\t:" + name);
            Console.WriteLine("Gender\t\t:" + gender);
            Console.WriteLine("Height\t\t:" + height);
            Console.WriteLine("Weight]\t\t:" + weight);
            Console.WriteLine("Blood Group\t:" + blood_group);
            Console.WriteLine("Address\t\t:" + address);
            Console.WriteLine("Class\t\t:" + clss);
            Console.WriteLine("Department\t:" + dept);
        }
    }
    public class employee : get_physic_info
    {
        public int empnumber;
        public string desig, dept;
        public void get_employee()
        {
            get_per_data();
            get_physic_data();
            Console.WriteLine("Enter the Employee Number");
            empnumber = int.Parse(Console.ReadLine());
            Console.WriteLine("Enter the Designation");
            desig = Console.ReadLine();
            Console.WriteLine("Enter the Department");
            dept = Console.ReadLine();
        }
        public void display_employee()
        {
            Console.WriteLine("\n-------EMPLOYEE INFORMATION--------\n");
            Console.WriteLine("Employee Number\t:" + empnumber);
            Console.WriteLine("Name\t\t:" + name);
            Console.WriteLine("Gender\t\t:" + gender);
            Console.WriteLine("Height\t\t:" + height);
            Console.WriteLine("Weight\t\t:" + weight);
            Console.WriteLine("Blood Group\t:" + blood_group);
            Console.WriteLine("Address\t\t:" + address);
            Console.WriteLine("Designation\t:" + desig);
            Console.WriteLine("Department\t:" + dept);
        }
    }

    class Program
    {
        static void Main(string[] args)
        {
```

```csharp
            int ch;
            student s = new student();
            employee e = new employee();
            Console.WriteLine("-------INHERITANCE------");
            Console.WriteLine("Choose any one");
            Console.WriteLine("1.STUDENT\n2.EMPLOYEE\nEnter your Choice");
            ch = int.Parse(Console.ReadLine());
            if (ch == 1)
            {
                s.get_student();
                s.display_student();
            }
            else if (ch == 2)
            {
                e.get_employee();
                e.display_employee();
            }
            else
            {
                Console.WriteLine("Invalid Choice");
            }
            Console.ReadKey();
        }
    }
}
```

OUTPUT :

```
-------INHERITANCE------
Choose any one
1.STUDENT
2.EMPLOYEE
Enter your Choice
1
Enter the Name
Arun
Enter the gender
Male
Enter the Address
Mangalore
Enter the weight
75
Enter the Height
180
Enter the Blood Group
O+
Enter the Roll Number
121
Enter the class
MCA
Enter the Department
CS

-------STUDENT INFORMATION--------

Roll Number     :121
Name            :Arun
Gender          :Male
Height          :180
Weight]         :75
Blood Group     :o+
Address         :Mangalore
Class           :MCA
Department      :CS
```
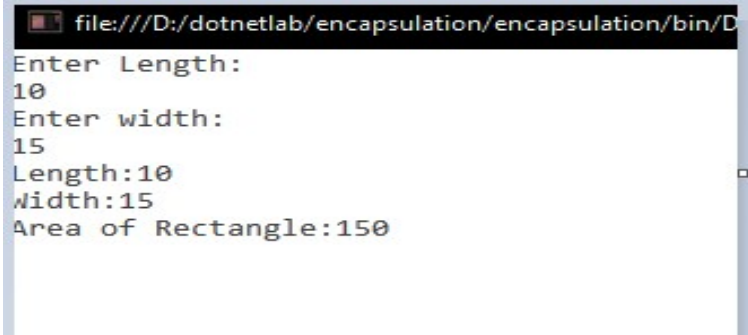
11) Write a C# program to implement Encapsulation

```csharp
using System;
using System.Collections.Generic;
using System.Linq;
using System.Text;
using System.Threading.Tasks;

namespace encapsulation
{
    class rect
    {

        int length, width;
        public void input()
        {
            Console.WriteLine("Enter Length:");
            length = int.Parse(Console.ReadLine());
            Console.WriteLine("Enter width:");
            width = int.Parse(Console.ReadLine());
        }
        public double area()
        {
            return length * width;
        }
        public void display()
        {
            Console.WriteLine("Length:" + length);
            Console.WriteLine("Width:" + width);
            Console.WriteLine("Area of Rectangle:" + area());
        }
    }
    class mainrectangle
    {
        static void Main(string[] args)
        {
            rect r = new rect();
            r.input();
            r.area();
            r.display();
            Console.ReadLine();
        }
    }
}
```

OUTPUT :

```
file:///D:/dotnetlab/encapsulation/encapsulation/bin/D
Enter Length:
10
Enter width:
15
Length:10
Width:15
Area of Rectangle:150
```

12) Write a C# program to implement Interface.

```csharp
using System;
using System.Collections.Generic;
using System.Linq;
using System.Text;
using System.Threading.Tasks;

namespace interface1
{
    public interface employee
    {
        void getdata();
        void display();
    }
    public class empdetails : employee
    {
        public int eno, sal;
        string name, dept;
        public void getdata()
        {
            Console.WriteLine("Employee details\n");
            Console.WriteLine("Enter Employee Number:");
            eno = int.Parse(Console.ReadLine());
            Console.WriteLine("Enter Employee Name:");
            name = Console.ReadLine();
            Console.WriteLine("Enter Employee Department:");
            dept = Console.ReadLine();
            Console.WriteLine("Enter Employee Salary:");
            sal = int.Parse(Console.ReadLine());
        }
        public void display()
        {
            Console.WriteLine("----EMPLOYEE DETAILS----");
            Console.WriteLine("Employee number :" + eno);
            Console.WriteLine("Employee Name :" + name);
            Console.WriteLine("Employee department :" + dept);
            Console.WriteLine("Employee Salary :" + sal);

        }
    }
    public class empvehicle : employee
    {
        public int vno;
        public string type;
        public void getdata()
        {
            Console.WriteLine("\nVehicle details\n");
            Console.WriteLine("Enter Vehicle Number :");
            vno = int.Parse(Console.ReadLine());
```

```csharp
            Console.WriteLine("Enter Vehicle type :");
            type = Console.ReadLine();
        }
        public void display()
        {
            Console.WriteLine("----VEHICLE DETAILS----");
            Console.WriteLine("Vehicle number:" + vno);
            Console.WriteLine("Vehicle type :" + type);
        }
    }
    class Program
    {
        static void Main(string[] args)
        {
            empdetails ed = new empdetails();
            ed.getdata();
            ed.display();
            empvehicle vd = new empvehicle();
            vd.getdata();
            vd.display();
            Console.ReadLine();
        }
    }
}
```
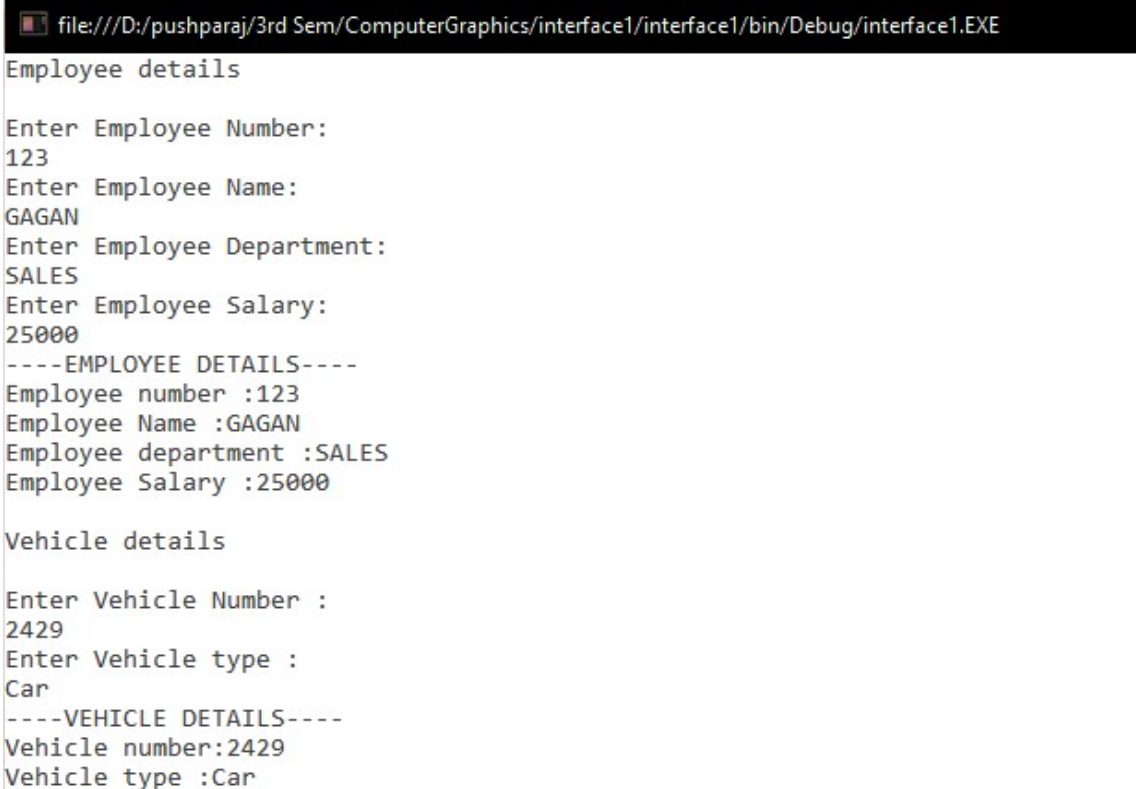
OUTPUT:

```
file:///D:/pushparaj/3rd Sem/ComputerGraphics/interface1/interface1/bin/Debug/interface1.EXE

Employee details

Enter Employee Number:
123
Enter Employee Name:
GAGAN
Enter Employee Department:
SALES
Enter Employee Salary:
25000
----EMPLOYEE DETAILS----
Employee number :123
Employee Name :GAGAN
Employee department :SALES
Employee Salary :25000

Vehicle details

Enter Vehicle Number :
2429
Enter Vehicle type :
Car
----VEHICLE DETAILS----
Vehicle number:2429
Vehicle type :Car
```

13) Write a C# program to find the Sum and Product of numbers as Command Line parameters.

```
using System;
using System.Collections.Generic;
using System.Linq;
using System.Text;
using System.Threading.Tasks;

namespace commandline
{
  class Program
  {
      static void Main(string[] args)
        {
          if (args.Length == 0)
          {
            Console.WriteLine("no argument");
            Console.ReadLine();
          }
          else
          {
            foreach (string str in args)
               Console.WriteLine(str);
            int sum = 0, product = 1, value;
            foreach (string str in args)
            {
               value = int.Parse(str);
               sum = sum + value;
               product = product * value;
            }
            Console.WriteLine("\n sum=" + sum);
            Console.WriteLine("\n product =" + product);
            Console.ReadLine();
          }
        }
    }
  }
```

OUTPUT :


```
file:///D:/dotnetlab/commandline/comm
10
11

sum=21

product  =110
```
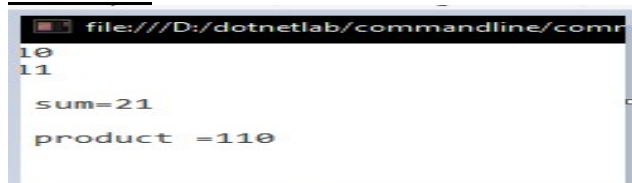
14) Design a C# Windows Application Program to Check whether a given String is Palindrome or Not.(Display the result in Label)

```csharp
using System;
using System.Collections.Generic;
using System.ComponentModel;
using System.Data;
using System.Drawing;
using System.Linq;
using System.Text;
using System.Threading.Tasks;
using System.Windows.Forms;

namespace palindromeb1
{
    public partial class Form1 : Form
    {
        public Form1()
        {
            InitializeComponent();
        }

        private void button1_Click(object sender, EventArgs e)
        {
            string str;
            str = textBox1.Text;
            string rev="";
            int len;
            len = str.Length;
            for(int i=len-1;i>=0;i--)
            {
                rev += str[i];
            }
            if(rev==str)
            {
                lbl2.Text = "The entered String is Palindrome";
            }
            else
            {
                lbl2.Text = "The entered String is not Palindrome";
            }
        }
    }
}
```

OUTPUT:

15) Design a C# Windows Application Program to implement Keyboard and Mouse Event.

```csharp
using System;
using System.Collections.Generic;
using System.ComponentModel;
using System.Data;
using System.Drawing;
using System.Linq;
using System.Text;
using System.Threading.Tasks;
using System.Windows.Forms;

namespace keyboardmouse
{
    public partial class Form1 : Form
    {
        public Form1()
        {
            InitializeComponent();
        }

     //  private void textBox2_TextChanged(object sender, EventArgs e)
     // {

     // }

        private void textBox2_KeyPress(object sender, KeyPressEventArgs e)
        {

            if ((e.KeyChar >= 48 && e.KeyChar <= 57) || e.KeyChar == 8)

            {
                keylbl.Text = "Numbers pressed";
            }
            if ((e.KeyChar >= 65 && e.KeyChar <= 122) || e.KeyChar == 8)

            {
                keylbl.Text = "Chracters pressed";
            }


        }

        private void textBox2_KeyDown(object sender, KeyEventArgs e)
        {
            if (e.KeyCode == Keys.Down)
            {
                keylbl.Text = "key down";
```

```csharp
        }

    }

    private void textBox2_KeyUp(object sender, KeyEventArgs e)
    {
        if (e.KeyCode == Keys.Up)
        {
            keylbl.Text = "key Up";
        }

    }

    private void btnclear_Click(object sender, EventArgs e)
    {
        mouselbl.Text = "";
        keylbl.Text = "";
        textBox2.Text = "";
    }

    private void Form1_MouseDown(object sender, MouseEventArgs e)
    {
        mouselbl.Text = "Mouse down";
    }

    private void Form1_MouseEnter(object sender, EventArgs e)
    {
        mouselbl.Text = "Mouse entered";
    }

    private void Form1_MouseHover(object sender, EventArgs e)
    {
        mouselbl.Text = "Mouse hover";
    }

    private void Form1_MouseLeave(object sender, EventArgs e)
    {
        mouselbl.Text = "Mouse leave";
    }

    private void Form1_MouseMove(object sender, MouseEventArgs e)
    {
        mouselbl.Text = "Mouse move";
    }

    private void Form1_MouseUp(object sender, MouseEventArgs e)
    {
        mouselbl.Text = "Mouse up";
    }
```

```csharp
private void Form1_MouseClick(object sender, MouseEventArgs e)
{
    mouselbl.Text = "Mouse clicked";
}

private void textBox2_MouseDoubleClick(object sender, MouseEventArgs e)
{
    mouselbl.Text = "Mouse doubleclicked";
}

private void Form1_Load(object sender, EventArgs e)
{

}
    }
}
```

OUTPUT:
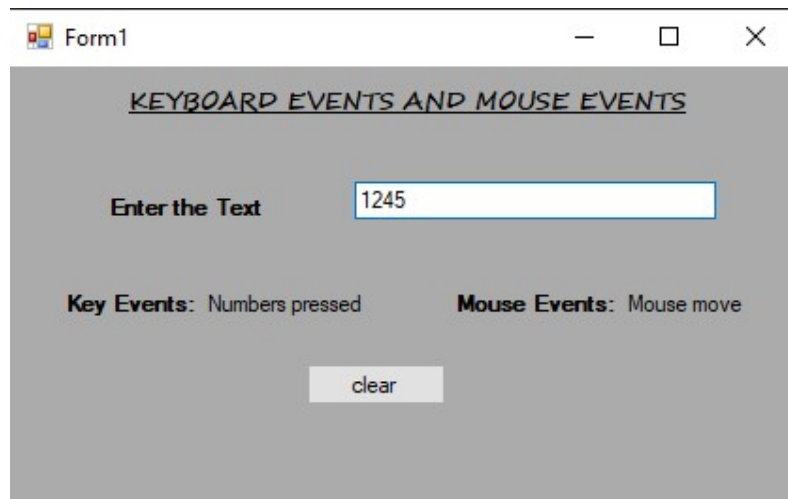
16) Design a C# Windows Application Program for Simple Calculator.

```csharp
using System;
using System.Collections.Generic;
using System.ComponentModel;
using System.Data;
using System.Drawing;
using System.Linq;
using System.Text;
using System.Threading.Tasks;
using System.Windows.Forms;

namespace calculatorb4
{
    public partial class Form1 : Form
    {
        float op1=0, op2=0,res=0;
        char op;
        public Form1()
        {
            InitializeComponent();
        }

        private void Form1_Load(object sender, EventArgs e)
        {

        }
        private void btn7_Click(object sender, EventArgs e)
        {
            string str = txt1.Text;
            str = str + "7";
            txt1.Text = str;
        }

        private void btn8_Click(object sender, EventArgs e)
        {
            string str = txt1.Text;
            str = str + "8";
            txt1.Text = str;
        }

        private void btn9_Click(object sender, EventArgs e)
        {
            string str = txt1.Text;
            str = str + "9";
            txt1.Text = str;
        }

        private void btn5_Click(object sender, EventArgs e)
```

```csharp
        {
            string str = txt1.Text;
            str = str + "5";
            txt1.Text = str;
        }

        private void btn1_Click(object sender, EventArgs e)
        {
            string str = txt1.Text;
            str = str + "1";
            txt1.Text = str;
        }

        private void btn2_Click(object sender, EventArgs e)
        {
            string str = txt1.Text;
            str = str + "2";
            txt1.Text = str;
        }

        private void btn3_Click(object sender, EventArgs e)
        {
            string str = txt1.Text;
            str = str + "3";
            txt1.Text = str;
        }

        private void btn0_Click(object sender, EventArgs e)
        {
            string str = txt1.Text;
            str = str + "0";
            txt1.Text = str;
        }

        private void btndot_Click(object sender, EventArgs e)
        {
            string str = txt1.Text;
            str = str + ".";
            txt1.Text = str;
        }

        private void btnclear_Click(object sender, EventArgs e)
        {
            txt1.Text = "";
        }

        private void btndelete_Click(object sender, EventArgs e)
        {
            string str,temp="";
            str = txt1.Text;
```

```csharp
        int len = str.Length;
        for(int i=0;i<len-1;i++)
        {
          temp = temp + str[i];
        }
        txt1.Text = temp;
    }

    private void btnplus_Click(object sender, EventArgs e)
    {
        op1 = float.Parse(txt1.Text);
        op = '+';
        txt1.Text = "";
    }

    private void btnminus_Click(object sender, EventArgs e)
    {
        op1 = float.Parse(txt1.Text);
        op = '-';
        txt1.Text = "";
    }

    private void btnstar_Click(object sender, EventArgs e)
    {
        op1 = float.Parse(txt1.Text);
        op = '*';
        txt1.Text = "";
    }

    private void btnslash_Click(object sender, EventArgs e)
    {
        op1 = float.Parse(txt1.Text);
        op = '/';
        txt1.Text = "";
    }

    private void btn6_Click(object sender, EventArgs e)
    {
        string str = txt1.Text;
        str = str + "6";
        txt1.Text = str;
    }

    private void btn4_Click(object sender, EventArgs e)
    {
        string str = txt1.Text;
        str = str + "4";
        txt1.Text = str;
    }
```

```
    private void btnmodulus_Click(object sender, EventArgs e)
    {
      op1 = float.Parse(txt1.Text);
      op = '%';
      txt1.Text = "";
    }

    private void btnequal_Click(object sender, EventArgs e)
    {
      op2 = float.Parse(txt1.Text);
      txt1.Text = "";
      switch(op)
      {
        case '+':res = op1 + op2;
          break;
        case '-':res = op1 - op2;
          break;
        case '*':res = op1 * op2;
          break;
        case '/':res = op1 / op2;
          break;
        case '%':res = op1 % op2;
          break;
      }
      txt1.Text = res.ToString();
    }
  }
}
```

OUTPUT:
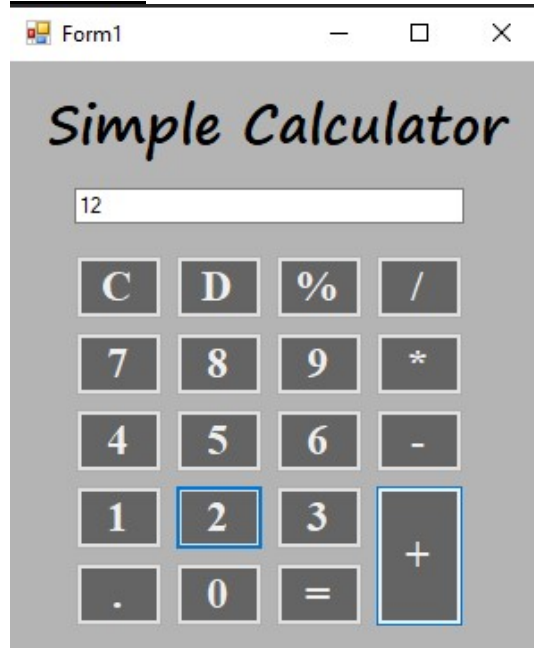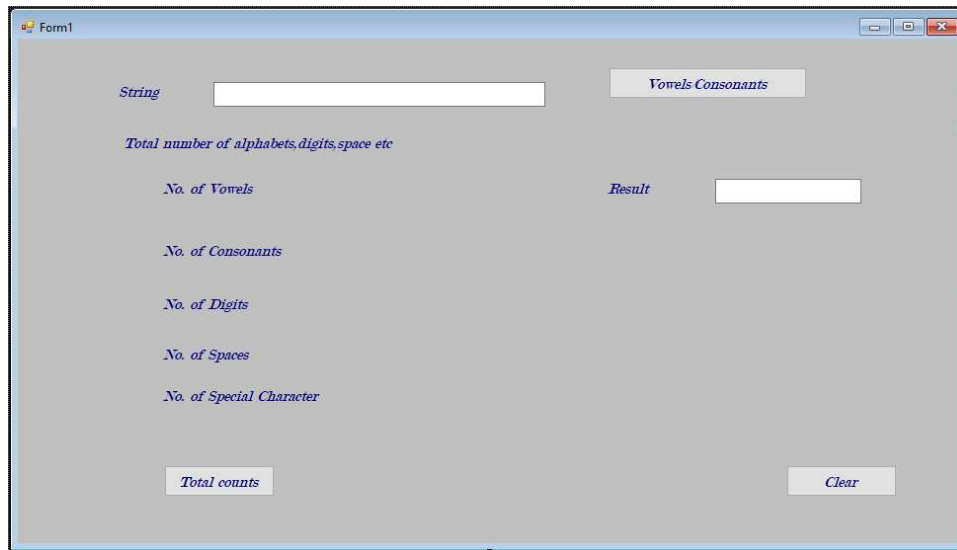
17) Design a C# Windows Application Program for checking Words, Digits, Vowels, Consonants, Special Characters, Spaces.


```csharp
using System;
using System.Collections.Generic;
using System.ComponentModel;
using System.Data;
using System.Drawing;
using System.Linq;
using System.Text;
using System.Threading.Tasks;
using System.Windows.Forms;

namespace alphabets
{
    public partial class Form1 : Form
    {
        public Form1()
        {
            InitializeComponent();
        }

        private void btntotal_Click(object sender, EventArgs e)
        {
            string str;
            int vowels, consonants, digit, splch, spaces, i, l;
            vowels = consonants = digit = splch = spaces = i = 0;
            str =textBox1.Text;
            l = str.Length;

            /* Checks each character of string*/
```

```
    while (i < l)
    {
       if (str[i] == 'a' || str[i] == 'e' || str[i] == 'i' ||
    str[i] == 'o' || str[i] == 'u' || str[i] == 'A' ||
    str[i] == 'E' || str[i] == 'I' || str[i] == 'O' ||
    str[i] == 'U')
       {
           ++vowels;
       }
       else if ((str[i] >= 'a' && str[i] <= 'z') || (str[i] >= 'A' && str[i] <= 'Z'))
       {
           ++consonants;
       }
       else if (str[i] >= '0' && str[i] <= '9')
       {
           digit++;
       }
       else if (str[i] == ' ')
       {
           ++spaces;
       }
       else
       {
           splch++;
       }

       i++;
    }
    lblvowels.Text = vowels.ToString();
    lblconsonants.Text = consonants.ToString();
    lbldigits.Text = digit.ToString();
    lblspace.Text = spaces.ToString();
    lblSchar.Text = splch.ToString();

}

private void button1_Click(object sender, EventArgs e)
{
    string alphabet = textBox1.Text;
    switch (alphabet)
    {
       case "a":
           alphabet = "Vowel";
           break;
       case "e":
           alphabet = "Vowel";
           break;
       case "i":
           alphabet = "Vowel";
           break;
```

```csharp
            case "o":
                alphabet = "Vowel";
                break;
            case "u":
                alphabet = "Vowel";
                break;
            default:
                alphabet = "Consonants";
                break;

        }
        textBox2.Text = alphabet;
    }

    private void btnclear_Click(object sender, EventArgs e)
    {
        textBox1.Text = "";
        textBox2.Text="";
        lblvowels.Text = "";
        lblconsonants.Text = "";
        lbldigits.Text = "";
        lblSchar.Text = "";
        lblspace.Text = "";
    }
  }
}
```

OUTPUT:

18) List of Employees are available in ListBox. Write an application to add selected or all records from ListBox to ListView.
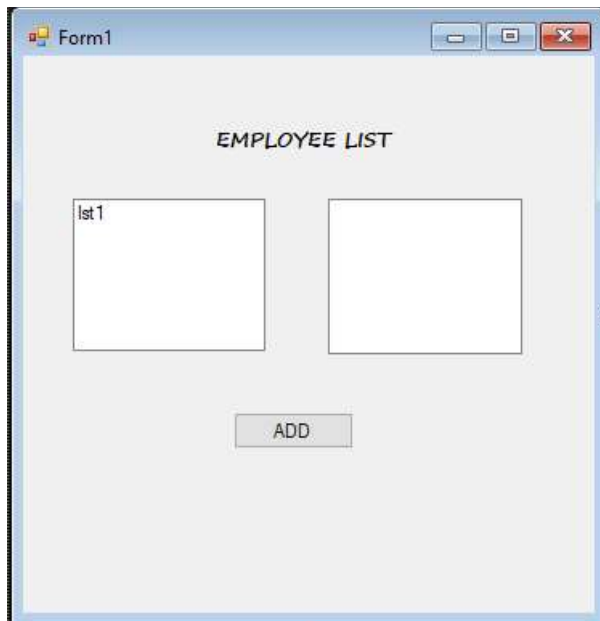

```
using System;
using System.Collections.Generic;
using System.ComponentModel;
using System.Data;
using System.Drawing;
using System.Linq;
using System.Text;
using System.Threading.Tasks;
using System.Windows.Forms;

namespace listmenu
{
    public partial class Form1 : Form
    {
        public Form1()
        {
            InitializeComponent();
        }

        private void button1_Click(object sender, EventArgs e)
        {
            foreach (Object obj in lst1.SelectedItems)
            {
                listView2.Items.Add(obj.ToString());
            }

        }
```

```
        private void Form1_Load(object sender, EventArgs e)
        {
            lst1.Items.Add("Prachith");
            lst1.Items.Add("Andy");
            lst1.Items.Add("Broke");
            lst1.Items.Add("Roman");
            lst1.Items.Add("Aniketh");
            lst1.Items.Add("Raki");
            lst1.Items.Add("Akshatha");
            lst1.SelectionMode = SelectionMode.MultiExtended;
        }
    }
}
```

OUTPUT:
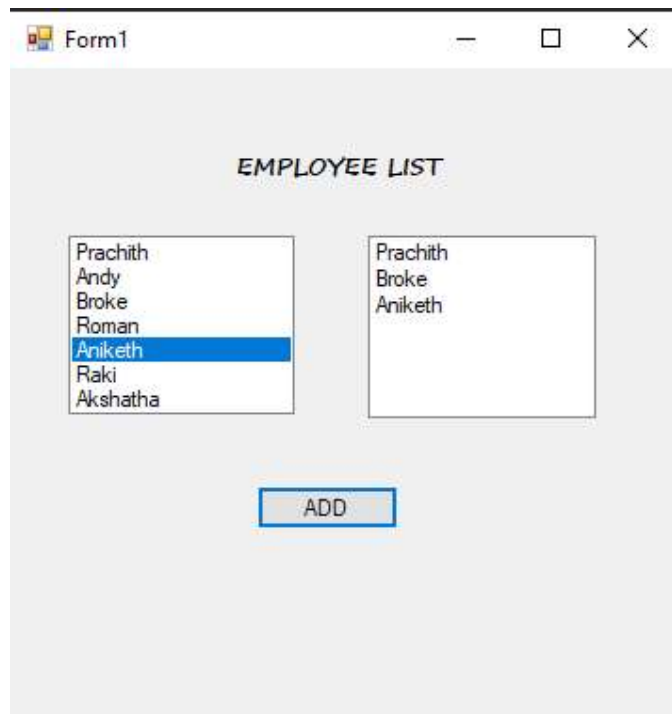
19) Write a program to create an Advertisement using Ad-rotator.

```xml
<?xml version="1.0" encoding="utf-8" ?>
<Advertisements>
  <Ad>
    <ImageUrl>images/1.jpg</ImageUrl>
  </Ad>
 <Ad>
    <ImageUrl>images/2.jpg</ImageUrl>
  </Ad>
  <Ad>
    <ImageUrl>images/3.jpg</ImageUrl>
  </Ad>
 <Ad>
    <ImageUrl>images/4.jpg</ImageUrl>
  </Ad>
</Advertisements>
```
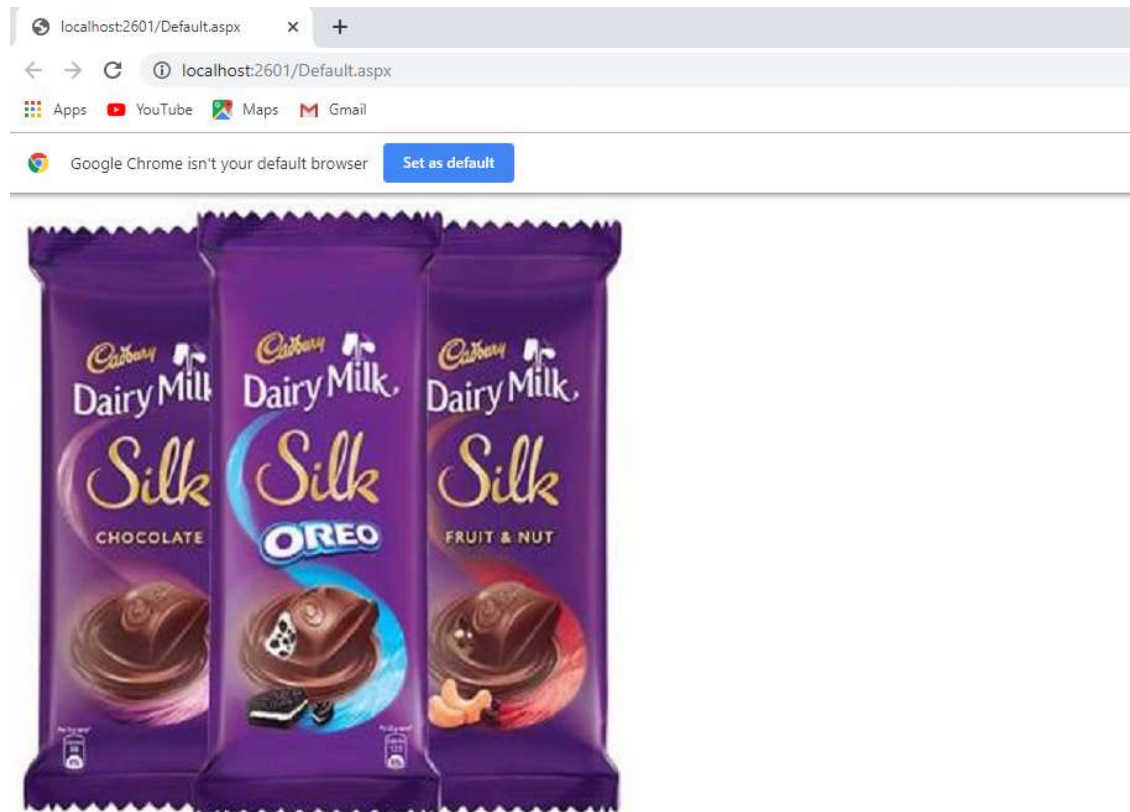
20) Design a webpage of a Hotel which display different Menu as per the Time of Visit.

```
using System;
using System.Collections.Generic;
using System.Linq;
using System.Web;
using System.Web.UI;
using System.Web.UI.WebControls;

public partial class _Default : System.Web.UI.Page
{
    protected void Page_Load(object sender, EventArgs e)
    {

    }
    protected void Button1_Click(object sender, EventArgs e)
    {
        String dt = System.DateTime.Now.Hour.ToString();
        Int16 dat = System.Int16.Parse(dt);
        if (dat >= 9 && dat <= 11)
        {
            Label1.Text = "MANU1";
            Label2.Text = "Idli";
            Label3.Text = "Dosa";
            Label4.Text = "Vada";
            Label5.Text = "Palav";
        }
        else if (dat >= 11 && dat <14)
        {
            Label1.Text = "MENU2";
            Label2.Text = "Meal";
            Label3.Text = "Biriyani";
            Label4.Text = "Chicken Meal";
            Label5.Text = "Palav";
            Label2.Visible = true;
            Label3.Visible = true;
            Label4.Visible = true;
            Label5.Visible = true;
        }
        else if (dat >= 14 && dat <=19)
        {
            Label1.Text = "MENU3";
            Label2.Text = "Noodles";
            Label3.Text = "Gobi Manchuri";
            Label4.Text = "Fried Rice";
            Label5.Text = "Masala Puri";
            Label2.Visible = true;
            Label3.Visible = true;
            Label4.Visible = true;
```

```
            Label5.Visible = true;
        }
        else if (dat >= 19 && dat <=24)
        {
            Label1.Text = "MENU4";
            Label2.Text = "Egg Masala";
            Label3.Text = "Kabab";
            Label4.Text = "Sizzelers";
            Label5.Text = "Prowns Masala";
            Label2.Visible = true;
            Label3.Visible = true;
            Label4.Visible = true;
            Label5.Visible = true;
        }
        else
            Label1.Text = "Hotel Closed";
    }
}
```
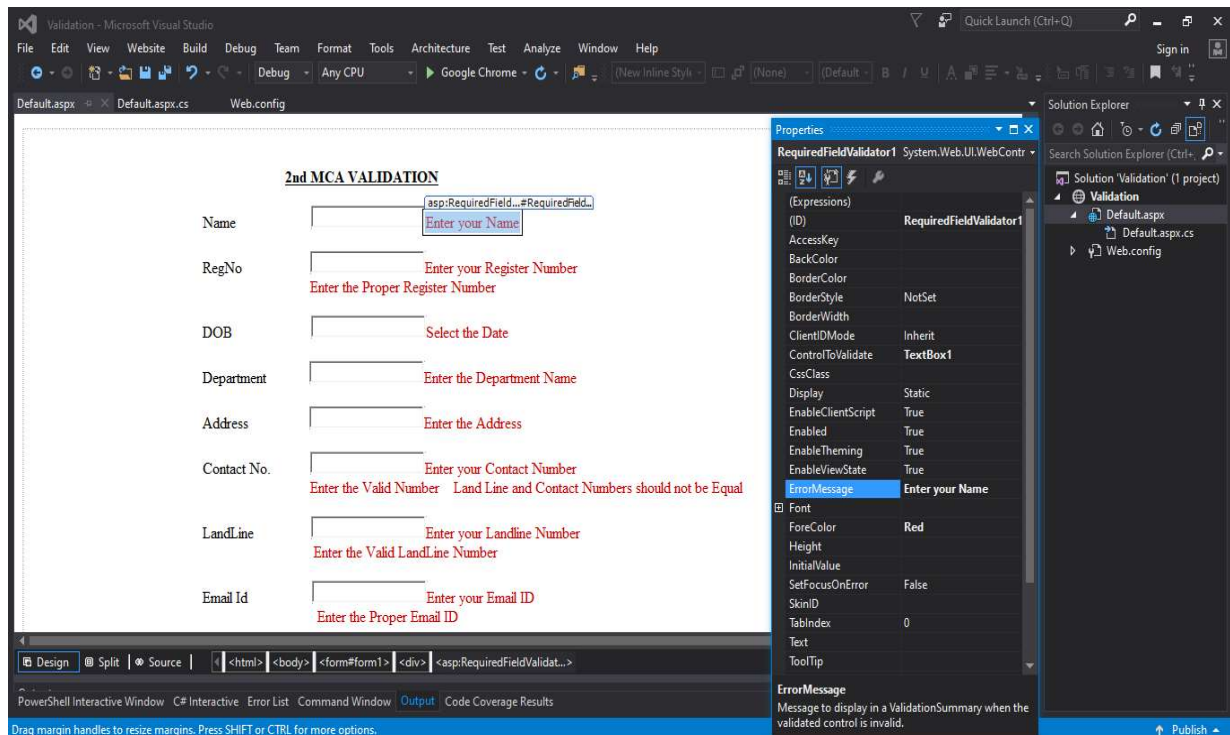
OUTPUT:
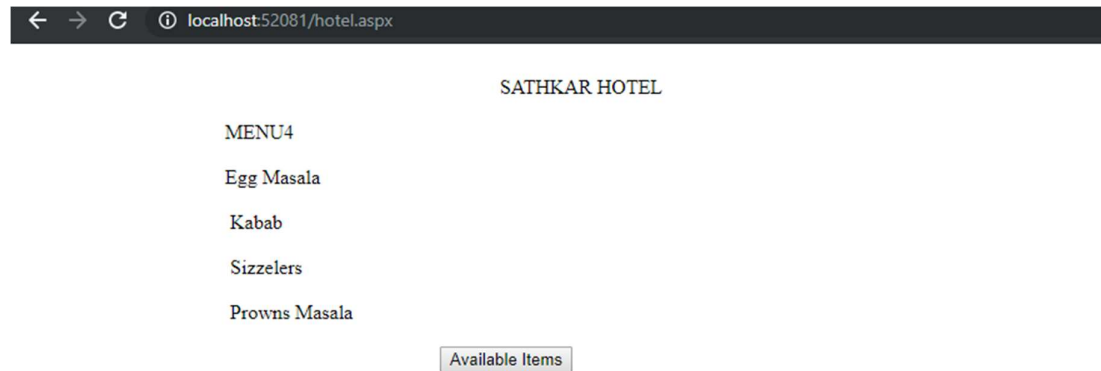
21) Design a Admission form with Client-side Validation.


```csharp
using System;
using System.Collections.Generic;
using System.Linq;
using System.Web;
using System.Web.UI;
using System.Web.UI.WebControls;

public partial class _Default : System.Web.UI.Page
{
    protected void Page_Load(object sender, EventArgs e)
    {

    }

    protected void Button1_Click(object sender, EventArgs e)
    {
        Label10.Text = "Finally Record Submitted ";
    }
}
```

2nd MCA VALIDATION

Name		Enter your Name
RegNo		Enter your Register Number
DOB	mm / dd / yyyy	Select the Date
Department		Enter the Department Name
Address		Enter the Address
Contact No.		Enter your Contact Number
LandLine		Enter your Landline Number
Email Id		Enter your Email ID

Submit

2nd MCA VALIDATION

Name	Parikshith	
RegNo	186353930	
	Enter the Proper Register Number	
DOB	11 / 25 / 2019	
Department	CS	
Address	Mangalore	
Contact No.	987654321	
	Enter the Valid Number Land Line and Contact Numbers should not be Equal	
LandLine	987654321	
	Enter the Valid LandLine Number	
Email Id	parikshithgmail	
	Enter the Proper Email ID	

Submit

2nd MCA VALIDATION

Name   Parikshith

RegNo   186353918

DOB   11 / 25 / 2019

Department   CS

Address   Mangalore

Contact No.   9876543210

LandLine   0824123456

Email Id   parikshith@gmail.com

Submit

Finally Record Submitted

22) Design a webpage to enter employee information such as Empno, Name, Dept (sales, Accounts, IT) and basic salary. Use the following for,

Add – for adding the record to the database(insert atleast 10 records)

Display All- for displaying all the records from the database

Display Department wise – to display information of only those employees working in specified department.

HOME PAGE:


```csharp
using System;
using System.Collections.Generic;
using System.Linq;
using System.Web;
using System.Web.UI;
using System.Web.UI.WebControls;

public partial class home : System.Web.UI.Page
{
    protected void Page_Load(object sender, EventArgs e)
    {

    }

    protected void Button1_Click(object sender, EventArgs e)
    {
        Response.Redirect("details.aspx");
    }

    protected void Button2_Click(object sender, EventArgs e)
    {
        Response.Redirect("display.aspx");
    }

    protected void Button3_Click(object sender, EventArgs e)
    {
        Response.Redirect("department.aspx");
```

```
    }
}
```

DETAIL PAGE:


```
using System;
using System.Collections.Generic;
using System.Linq;
using System.Web;
using System.Web.UI;
using System.Data.OleDb;
using System.Web.UI.WebControls;

public partial class details : System.Web.UI.Page
{
    OleDbCommand com;
    String str;

    protected void Page_Load(object sender, EventArgs e)
    {

    }

    protected void Button2_Click(object sender, EventArgs e)
    {
        Response.Redirect("home.aspx");
    }
```

```
    protected void Button1_Click(object sender, EventArgs e)
    {
       String dept = "";

       dept = RadioButtonList1.SelectedItem.Text;
       OleDbConnection con = new OleDbConnection(@"Provider =
Microsoft.ACE.OLEDB.12.0; Data Source = D:\pushparaj\3rd
Sem\dotnet\Employee\emp.accdb");
       con.Open();
       try
       {
          str="insert into
emp(empid,empname,dept,salary)values('"+TextBox1.Text+"','"+TextBox2.Text+"','"+dept+
"','"+TextBox3.Text+"')";
          com = new OleDbCommand(str, con);
          com.ExecuteNonQuery();
          con.Close();
          Page.ClientScript.RegisterStartupScript(this.GetType(), "Scritkey",
"<script>alert('Details saved Successfully');</script>");
       }
       catch
       {
          Page.ClientScript.RegisterStartupScript(this.GetType(), "Scritkey",
"<script>alert('There is Some Error');</script>");
       }
    }
}
```

DISPLAY PAGE:

DISPLAY DETAILS

empid	empname	dept	salary
123	arun	Sales	15000
1111	push	Accounts	20000
1234	amith	IT	15000
420	Elyas	IT	45000

HOME

using System;

```
using System.Collections.Generic;
using System.Linq;
using System.Web;
using System.Web.UI;
using System.Web.UI.WebControls;

public partial class display : System.Web.UI.Page
{
    protected void Page_Load(object sender, EventArgs e)
    {

    }

    protected void Button1_Click(object sender, EventArgs e)
    {
        Response.Redirect("home.aspx");
    }
}
```

DEPARTMENT PAGE:

DISPLAY DEPARTMENT

Select the Department:

○ Sales

○ Accounts

◉ IT

Check

empid	empname	dept	salary
1234	amith	IT	15000
420	Elyas	IT	45000

HOME

```
using System;
using System.Collections.Generic;
using System.Linq;
using System.Web;
using System.Web.UI;
using System.Data.OleDb;
```

```csharp
using System.Data;
using System.Web.UI.WebControls;

public partial class department : System.Web.UI.Page
{
    OleDbCommand com;
    String str;

    protected void Page_Load(object sender, EventArgs e)
    {

    }

    protected void Button1_Click(object sender, EventArgs e)
    {
        Response.Redirect("home.aspx");
    }

    protected void RadioButton1_CheckedChanged(object sender, EventArgs e)
    {

    }

    protected void Button2_Click(object sender, EventArgs e)
    {
        String dept = "";

        dept = RadioButtonList1.SelectedItem.Text;


        OleDbConnection con = new OleDbConnection(@"Provider =
Microsoft.ACE.OLEDB.12.0; Data Source = D:\pushparaj\3rd
Sem\dotnet\Employee\emp.accdb");
        con.Open();
        try
        {
            OleDbCommand cmd = new OleDbCommand("select * from emp where dept='" +
dept.ToString() + "'", con);
            OleDbDataAdapter adapter = new OleDbDataAdapter(cmd);
            DataSet ds = new DataSet();
            adapter.Fill(ds, "emp");
            GridView2.DataSource = ds;
            GridView2.DataBind();
            con.Close();
            Page.ClientScript.RegisterStartupScript(this.GetType(), "Scritkey",
"<script>alert('Details Fetched Successfully');</script>");
        }
        catch
        {
```

```
        Page.ClientScript.RegisterStartupScript(this.GetType(), "Scritkey",
"<script>alert('There is Some Error');</script>");
        }


    }
}
```

23) Design a webpage to enter Book information in a library such as Acc. no., Author, Title, publication, Volume, Edition. Use the following buttons for,

Add - for adding the record to the database (Insert at least 5 records).

Display All - for displaying all the records from the database

Delete out dated Book - To delete an out dated book by specifying accession no.

HOME PAGE:

INSERT PAGE:


```
using System;
using System.Collections.Generic;
using System.Linq;
using System.Web;
using System.Web.UI;
using System.Data.OleDb;
using System.Data;
using System.Web.UI.WebControls;
```

```
public partial class add : System.Web.UI.Page
{
    OleDbCommand com;
    String str;
    protected void Page_Load(object sender, EventArgs e)
    {

    }

    protected void btnhome_Click(object sender, EventArgs e)
    {
        Response.Redirect("home.aspx");
    }

    protected void btnclear_Click(object sender, EventArgs e)
    {
        accno.Text = "";
        author.Text = "";
        title.Text = "";
        pub.Text = "";
        edit.Text = "";
        vol.Text = "";
    }

    protected void btnadd_Click(object sender, EventArgs e)
    {
        OleDbConnection con = new OleDbConnection(@"Provider =
Microsoft.ACE.OLEDB.12.0; Data Source = D:\pushparaj\3rd Sem\dotnet\Lib.accdb");
        con.Open();
        try
        {
            str="insert into library
values('"+accno.Text+"','"+author.Text+"','"+title.Text+"','"+pub.Text+"','"+edit.Text+"','"+v
ol.Text+"')";
            com = new OleDbCommand(str, con);
            com.ExecuteNonQuery();
            con.Close();
            Page.ClientScript.RegisterStartupScript(this.GetType(), "ScriptKey",
"<script>alert('Saved Successfully');</script>");
        }
        catch
        {
            Page.ClientScript.RegisterStartupScript(this.GetType(), "ScriptKey",
"<script>alert('There is Some Error);</script>");
        }

    }
}
```

DISPLAY PAGE:

DISPLAY RECORDS

accno	author	Title	publication	edition	volume
12134	balaguruswamy	c++	pearson	2nd	2
1212	herbert Schildt	Java The Complete Reference	McGraw	9th	3

HOME

```
using System;
using System.Collections.Generic;
using System.Linq;
using System.Web;
using System.Web.UI;
using System.Web.UI.WebControls;

public partial class display : System.Web.UI.Page
{
    protected void Page_Load(object sender, EventArgs e)
    {

    }

    protected void btnhome_Click(object sender, EventArgs e)
    {
        Response.Redirect("home.aspx");
    }
}
```

DELETE PAGE:

DELETE RECORD

Accession Number: 1212

SEARCH   HOME

BOOK DETAILS

accno	author	Title	publication	edition	volume
1212	herbert Schildt	Java The Complete Reference	McGraw	9th	3

DELETE

```csharp
using System;
using System.Collections.Generic;
using System.Linq;
using System.Web;
using System.Data.OleDb;
using System.Data;
using System.Web.UI;
using System.Web.UI.WebControls;

public partial class delete : System.Web.UI.Page
{
    OleDbCommand com;
    String str;
    protected void Page_Load(object sender, EventArgs e)
    {

    }

    protected void btndisplay_Click(object sender, EventArgs e)
    {
        OleDbConnection con = new OleDbConnection(@"Provider =
Microsoft.ACE.OLEDB.12.0; Data Source = D:\pushparaj\3rd Sem\dotnet\Lib.accdb");
        con.Open();
        try
        {
            OleDbCommand cmd = new OleDbCommand("select * from library where accno
like'" + accno.Text + "'", con);
            OleDbDataAdapter adapter = new OleDbDataAdapter(cmd);
            DataSet ds = new DataSet();
            DataTable dt = new DataTable();
            adapter.Fill(ds, "library");
            GridView1.DataSource = ds;
            GridView1.DataBind();
            dt = ds.Tables["library"];
            if (dt.Rows.Count <= 0)
            {
                Label1.Text = "Book does not exist";
            }
            else
            {
                Label1.Text = "BOOK DETAILS";
                btndel.Visible = true;
            }
            con.Close();

        }
        catch
        {
```

```
        Page.ClientScript.RegisterStartupScript(this.GetType(), "Scritkey",
"<script>alert('There is Some Error');</script>");
        }
    }

    protected void btndel_Click(object sender, EventArgs e)
    {
        OleDbConnection con = new OleDbConnection(@"Provider =
Microsoft.ACE.OLEDB.12.0; Data Source = D:\pushparaj\3rd Sem\dotnet\Lib.accdb");
        con.Open();
        try
        {
            str = "delete from library where accno like'"+accno.Text+"'";
            com = new OleDbCommand(str, con);
            com.ExecuteNonQuery();
            con.Close();
            Page.ClientScript.RegisterStartupScript(this.GetType(), "ScriptKey",
"<script>alert('Deleted Successfully');</script>");
        }
        catch
        {
            Page.ClientScript.RegisterStartupScript(this.GetType(), "ScriptKey",
"<script>alert('There is Some Error);</script>");
        }
    }

    protected void btnhome_Click(object sender, EventArgs e)
    {
        Response.Redirect("home.aspx");
    }
}
```